

**REBUTTAL TESTIMONY OF**  
**ERIC H. BELL, P.E.**  
**ON BEHALF OF**  
**DOMINION ENERGY SOUTH CAROLINA, INC.**  
**DOCKET NO. 2021-2-E**

1   **Q.   PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND**  
2       **OCCUPATION.**

3   A.           My name is Eric H. Bell. My business address is 220 Operation Way, Cayce,  
4               South Carolina. My position is Manager - Electric Market Operations for Dominion  
5               Energy South Carolina, Inc. (“DESC” or the “Company”).

6  
7   **Q.   ARE YOU THE SAME ERIC H. BELL WHO PREVIOUSLY SUBMITTED**  
8       **DIRECT TESTIMONY IN THIS PROCEEDING?**

9   A.           Yes, I am.

10  
11   **Q.   WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

12   A.           The purpose of my rebuttal testimony is to respond to certain matters raised  
13               in the pre-filed direct testimony of R. Thomas Beach, witness for the South Carolina  
14               Coastal Conservation League and Southern Alliance for Clean Energy. Company  
15               witness Margot Everett will also respond to certain matters raised by Witness Beach.  
16               I note that the absence of rebuttal testimony by any of the Company’s witnesses

1 addressing a particular proposal by Witness Beach does not indicate that the  
2 Company agrees with or accepts the proposal. The Company believes that its  
3 proposed NEM Distributed Energy Resources values, updated as necessary during  
4 this proceeding, are reasonable and appropriate, and are consistent with statutory  
5 requirements and applicable orders of this Commission, and therefore should be  
6 approved for inclusion in the Company's tariff.

7  
8 **FACTORS WITH ZERO VALUES**

9 **Q. HOW DO YOU RESPOND TO WITNESS BEACH'S ASSERTION ON**  
10 **PAGE 5, LINES 23-24, OF HIS DIRECT TESTIMONY THAT, "IF THERE**  
11 **IS UNCERTAINTY ABOUT THE MAGNITUDE OF A SPECIFIC BENEFIT**  
12 **OR COST, THE DEFAULT SHOULD NOT BE TO ASSIGN A ZERO**  
13 **VALUE TO THAT CATEGORY"?**

14 **A.** I provide below further responses to specific instances of Witness Beach's  
15 complaints about the Company's use of a zero value for certain NEM Distributed  
16 Energy Resources categories. Succinctly put, however, when the Company has  
17 used a zero value for any of the NEM Distributed Energy Resources categories, it  
18 is not a default value but is the product of careful analysis of the category  
19 characteristics as applied to DESC's system. To complete the point, each proposed  
20 component of value is supported by state law, Commission Order, or carefully  
21 considered calculation.

1   **Q.   ON PAGE 12, LINES 5-11, OF HIS DIRECT TESTIMONY, WITNESS**  
2       **BEACH ASSERTS THAT THE COMPANY HAS IMPROPERLY USED A**  
3       **ZERO VALUE FOR CERTAIN NEM DISTRIBUTED ENERGY**  
4       **RESOURCES CATEGORIES THAT HAVE “REAL VALUE TO THE**  
5       **UTILITY.” DO YOU AGREE WITH THAT ASSERTION?**

6   **A.**       No. In an effort to arbitrarily inflate the value of the Company’s NEM  
7       Distributed Energy Resources, Witness Beach has asserted that there is some value  
8       to Ancillary Services; T&D Capacity; Avoided Carbon Dioxide Emission Costs;  
9       and Fuel Hedge. However, in each instance, Witness Beach is incorrect.

10           Ancillary Services. Ancillary Services refers to the need to balance the load  
11       and generation on the Company’s system, and includes operating reserves, both  
12       spinning and non-spinning; frequency regulation; and voltage control. However,  
13       because none of the current or anticipated Distributed Energy Resources (“DER”)  
14       generators are able to provide these services, the Company has assigned a value of  
15       zero to this category.

16           T&D Capacity. Because DESC’s NEM Distributed Energy Resources do  
17       not avoid transmission or distribution capacity needed to serve DESC’s customers,  
18       the value of this component is zero. The most severe transmission and distribution  
19       peak loads presently occur on cold winter mornings, most often before sunrise and  
20       always before significant production from PV solar systems. Even if some  
21       contribution from the DER is assumed or does actually occur in the peak demand

1 period, that contribution cannot be quantified or relied on for planning or  
2 contingencies due to the intermittent nature of the resource. Therefore, when  
3 evaluating the need for improvements on those power delivery systems, no  
4 contribution can be assumed from PV solar generation and no credit is given in the  
5 model when planning for a contingency. Moreover, on the distribution system,  
6 DESC's engineers must design a circuit for circumstances that will stress the circuit.  
7 In particular, since solar output is intermittent during the day and non-existent at  
8 night, engineers must also plan for when the DER are not supplying power. The  
9 distribution line must carry the load both when the DER are generating and when  
10 they are not because of weather-related factors or because the DER are offline. As  
11 such, the DER do not provide any benefit in the analysis and, therefore and  
12 appropriately, are not assigned value.

13 Avoided Carbon Dioxide Emissions Costs. Curiously, Witness Beach  
14 asserts that the Company erred in assigning a value of zero to avoided CO<sub>2</sub> emissions  
15 costs. However, in Order No. 2015-194 issued in Docket No. 2014-246-E, the  
16 Public Service Commission of South Carolina ("Commission") expressly stated that  
17 the "cost of CO<sub>2</sub> emissions may be included in the Avoided Energy Component,  
18 but, if not, they should be accounted for separately. A zero monetary value will be  
19 used until state or federal laws or regulations result in an avoidable cost on Utility  
20 systems for these emissions." Because there is currently no state or federal law or  
21 regulation that results in CO<sub>2</sub> costs on the DESC system, the Company appropriately

1 used a value of zero for avoided CO<sub>2</sub> costs. Any changes in resource plans to reduce  
2 carbon are captured in the avoided energy and avoided capacity values.

3 Fuel Hedge. DESC does not hedge fuels for electric generation. Therefore,  
4 the correct value for fuel hedging is zero. In Exhibit No. \_\_\_\_ (RTB-2),<sup>1</sup> Witness  
5 Beach equates renewables generation to a fuel hedge program and, thus, advocates  
6 assigning a value to this category based on that characterization. However, because  
7 the fuel cost benefit of renewables is already captured in avoided energy costs,  
8 Witness Beach's proposal serves to double count the fuel cost benefit of renewables.  
9

10 **Q. WHAT IS YOUR RESPONSE TO WITNESS BEACH'S ASSERTION ON**  
11 **PAGES 12 AND 13 OF HIS DIRECT TESTIMONY THAT THE COMPANY**  
12 **IMPROPERLY CONCLUDED THAT SOLAR HAS ZERO VALUE FOR**  
13 **AVOIDED GENERATION CAPACITY?**

14 A. Interestingly, Witness Beach makes this assertion based not on his own  
15 analysis but on the testimony of another witness, Devi Glick, filed in Docket No.  
16 2019-2-E. Notwithstanding the lack of analysis by Witness Beach, however, solar  
17 has a zero avoided capacity value because DESC's resource plans are based on  
18 winter peaks that typically occur before the sun rises in the morning and before solar

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<sup>1</sup> Exhibit No. \_\_\_\_ (RTB-2) is a verbatim copy of the Rebuttal Testimony that was filed by Witness Beach in Docket No. 2019-182-E on behalf of the South Carolina Coastal Conservation League, Update Forever, Vote Solar, the Solar Energy Industries Association, and the North Carolina Sustainable Energy Association.

1 has begun to generate. Moreover, Witness Beach has overlooked the ten-year  
2 levelized value assigned to avoided capacity costs as required by Order No. 2020-  
3 244. The NEM values proposed by DESC include this amount for the ten-year  
4 period. No value is assigned to the current period because reserve margins are  
5 currently adequate, and no capacity resources are added during that period.  
6

7 **Q. IN EXHIBIT NO. \_\_\_\_ (RTB-2), PAGE 9, LINES 5-7, WITNESS BEACH**  
8 **STATES THAT, WITH RESPECT TO AVOIDED GENERATION COSTS,**  
9 **“34% OF A SOLAR PV PROJECT’S CAPACITY MAY BE ASSUMED TO**  
10 **CONTRIBUTE TO MEETING DESC’S CAPACITY NEEDS IN ITS PEAK**  
11 **LOAD HOURS.” WHAT IS YOUR RESPONSE TO THAT STATEMENT?**

12 A. I disagree. The demand period that is important to the avoided capacity  
13 calculation is the winter peak, which, as I note above, typically occurs before the  
14 sun rises and, thus, before solar begins to generate power. The winter peak is critical  
15 to the calculation for three reasons: (1) there is a higher winter reserve margin; (2)  
16 the 973 MW of utility scale solar PPAs contribute to the summer peak but not to the  
17 winter peak; and 3) the peak load forecast is higher in winter. Witness Beach  
18 identifies situations when solar contributed to meeting the daily peak, but that does  
19 not equate to a contribution to meeting the winter peak and, thus, does not mean that  
20 the presence of solar avoids the need for new capacity or capacity costs. Even if it  
21 could be shown that the first solar generation resources or some initial level of PV

1 resources contributed to serving a peak demand period, DESC calculations and  
2 analyses have consistently determined that additional levels of stand-alone PV solar  
3 generation have no or almost no capacity value on the winter peak. Once again,  
4 since the very nature of the PV solar resource is intermittent, it cannot be counted  
5 at any specific moment in the future or at the system peak demand period.  
6

7 **Q. WITNESS BEACH AGAIN REFERS TO FORMER WITNESS GLICK ON**  
8 **PAGES 13-14 OF HIS DIRECT TESTIMONY, ASSERTING THAT NON-**  
9 **PARTICIPATING CUSTOMERS ARE OVERCHARGED BY SETTING**  
10 **THE VALUE OF NEM DISTRIBUTED ENERGY RESOURCES TOO LOW.**  
11 **WHAT IS YOUR RESPONSE TO THAT ASSERTION?**

12 A. I disagree. The Company makes every effort to determine the appropriate  
13 value for NEM Distributed Energy Resources based on actual conditions and  
14 experiences, not guesses or speculation. Although it is necessary to ensure that the  
15 Company's non-participating customers are not overcharged by setting the value of  
16 NEM Distributed Energy Resources too low, Witness Beach's proposals would set  
17 that value too high and, thus, cause the Company to incur costs above and beyond  
18 the actual costs of the DER.  
19

1 **Q. HOW DO YOU RESPOND TO WITNESS BEACH'S ASSERTION IN**  
2 **EXHIBIT NO. \_\_\_\_ (RTB-2), PAGE 3, LINES 24-26, THAT WITH "RESPECT**  
3 **TO OTHER QUANTIFIABLE BENEFITS (SUCH AS AVOIDED**  
4 **CAPACITY COSTS OF TRANSMISSION AND DISTRIBUTION,**  
5 **AVOIDED FUEL HEDGING COSTS, AND AVOIDED COSTS TO REDUCE**  
6 **CARBON EMISSIONS), THE UTILITY TESTIMONY IS SILENT"?**

7 A. I disagree with that assertion. It appears that this assertion may have been  
8 tailored to the proceedings in which his rebuttal testimony was filed, because I  
9 address each of the parameters to which he refers in my prefiled corrected direct  
10 testimony and explain why the value is zero. Simply put, contrary to Witness  
11 Beach's assertions, a zero value is appropriate if that is the calculated value for the  
12 factor—which it is for those categories for which the Company in fact used a zero  
13 value.

14  
15 **OTHER ISSUES**

16 **Q. HOW DO YOU RESPOND TO WITNESS BEACH'S ASSERTION THAT**  
17 **THE USE OF A 25-YEAR LIFE IS MORE APPROPRIATE THAN THE**  
18 **TEN-YEAR LIFE USED BY THE COMPANY?**

19 A. The Company believes that using a ten-year planning period for DER is the  
20 most appropriate and reasonable planning period. Although Order No. 2015-194 is  
21 silent on the appropriate period for calculating avoided costs, Act No. 62 uses a ten-



1 year period for PURPA Qualified Facilities, and the Company believes that this is  
2 the appropriate period to use for calculated NEM Distributed Energy Resources  
3 avoided costs. Using longer periods to calculate avoided costs has caused utility  
4 customers to consistently overpay for solar power based on declining avoided costs.  
5 That is, as greater amounts of solar are added to the system over time, the amount  
6 of actual cost avoided from solar power is reduced, resulting in customers paying  
7 more for solar generation in future years than the current avoided cost and also  
8 resulting in increased fuel costs.

9  
10 **Q. WITNESS BEACH PROPOSES THE CONSIDERATION OF OTHER**  
11 **FACTORS AS PART OF DETERMINING THE COST OF NEM**  
12 **DISTRIBUTED ENERGY RESOURCES. HOW DO YOU RESPOND TO**  
13 **THAT?**

14 A. I disagree with his proposal. Witness Beach recommends that the  
15 Commission consider certain societal benefits, some quantitatively and others  
16 qualitatively, in determining the appropriate NEM Distributed Energy Resources  
17 values. However, the societal benefits that Witness Beach identifies are not  
18 included in the calculation of NEM Distributed Energy Resources as set forth in  
19 Order No. 2015-194. Nor should they be included in that calculation. Societal  
20 benefits like those Witness Beach identifies are not readily susceptible to objective  
21 calculation and, moreover, are not utility costs that the Company can avoid. As

1 Company witness Margot Everett testifies here and in Docket No. 2019-182-E,  
2 federal and state tax credits for solar owners already include value for societal  
3 benefit and, thus, Witness Beach's proposal would result in some double counting.  
4 In short, societal benefits are not and should not be included in the calculation of  
5 NEM Distributed Energy Resources.

6  
7 **SUMMARY**

8 **Q. WHAT ARE YOU ASKING THIS COMMISSION TO DO?**

9 A. I am respectfully requesting that the Commission approve the calculation of  
10 the total value of NEM Distributed Energy Resources as set forth above and in my  
11 prefiled corrected direct testimony.

12  
13 **Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

14 A. Yes.